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10/539,062

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Pilgrim G.W Beart

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EXAMINER

WENDELL, ANDREW

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2618

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,062	Applicant(s) BEART ET AL.	
	Examiner ANDREW WENDELL	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-31, 38-40, 42-44, and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis et al. (WO 96/02879) in view of Mickle et al. (US Pat# 2005/0192062).

Regarding claim 1, Kikinis teaches power receiving apparatus for use with a portable electrical device to enable the device to receive power wirelessly, the apparatus comprising a power-receiving element 98 (Fig. 18) adapted to be attached to the device 10 (Fig. 18), and also being adapted to receive power wirelessly from a transmitter of power when the element and transmitter are in proximity with one another (Page 11 line 28-Page 12 line 4 and Page 33 lines 4-15); and one or more power connectors which, when the apparatus is in use, are connected electrically to the power-receiving element and are adapted to be connected to one or more corresponding power connectors of the portable electrical device to deliver power received by the element to the device (Page 11 line 28-Page 12 line 4 and Page 33 lines 4-15). Kikinis fails to teach an inductive power-receiving element.

Mickle teaches an inductive power-receiving element 100 (Fig. 1) adapted to be attached to the device 4 (Fig. 1), and also being adapted to receive power wirelessly

30 (Fig. 1) by electromagnetic induction from a transmitter 2 (Fig. 1) of power when the element and transmitter are in proximity with one another (Section 0030).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate an inductive power-receiving element as taught by Mickle into Kikinis's wireless power receiving apparatus in order to increase efficiency (Sections 0013-0014).

Regarding claim 2, the combination including Kikinis teaches wherein the power-receiving element 98 (Fig. 18) is adapted to be attached adhesively to the device when the apparatus is in use (Fig. 18).

Regarding claim 3, the combination including Kikinis teaches mechanical attachment arrangement adapted to attach the power-receiving element mechanically to the device when the apparatus is in use (Fig. 18, Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 5, the combination including Kikinis teaches wherein the power-receiving element and at least one of the power connectors of the apparatus are connected rigidly together, whereby connection of the at least one power connector to its the corresponding power connector of the portable electrical device serves to attach the power-receiving element mechanically to the device (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 6, the combination including Kikinis teaches a flexible connecting member connecting the one or more power connectors flexibly to the power-receiving element (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 7, the combination including Kikinis teaches wherein the flexible connecting member also serves to connect the one or more power connectors electrically to the power-receiving element (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 8, the combination including Kikinis teaches having one or more electrical connections extending between the power-receiving element and the one or more power connectors, the one or more electrical connections being detachable from the power-receiving element and/or from the one or more power connectors when the apparatus is not in use (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 9, the combination including Kikinis teaches wherein the portable electrical device has first connector arrangement adapted to connect to corresponding second connector arrangement of external equipment, the first connector arrangement providing the one or more corresponding power connectors of the portable electrical device, and the apparatus further comprising: a third connector arrangement adapted to connect to the first connector arrangement of the portable electrical device, the third connector arrangement providing the one or more power connectors of the apparatus; a fourth connector arrangement adapted to connect to the second connector arrangement of the external equipment; and a pass-through connection arrangement interconnecting at least one connector of the third connector arrangement and a corresponding connector of the fourth connector arrangement (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 10, the combination including Kikinis teaches wherein the first to fourth connector arrangements also provide connectors for purposes other than power delivery, and the pass-through connection arrangement serves to interconnect corresponding connectors of the third and fourth connector arrangements used for the other purposes (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 11, the combination including Mickle teaches power-conditioning circuitry operable to condition the power received by the power-receiving element prior to delivery to the portable electrical device (Section 0030).

Regarding claim 12, the combination including Kikinis teaches wherein the power-receiving element 98 (Fig. 18) is small relative to the portable electrical device 10 (Fig. 18).

Regarding claim 13, the combination including Kikinis teaches wherein the power-receiving element 98 (Fig. 18) is thin relative to the portable electrical device 10 (Fig. 18).

Regarding claim 14, the combination including Kikinis teaches wherein a volume occupied by the power-receiving element 98 (Fig. 18) is small in comparison with a volume occupied by the portable electrical device 10 (Fig. 18).

Regarding claim 15, the combination including Kikinis teaches wherein the power-receiving element 98 (Fig. 18) is of sufficiently small dimensions that, when attached to the portable electrical device 10 (Fig. 18), it does not substantially alter the ergonomics of the device.

Regarding claim 16, the combination including Kikinis teaches wherein parts of the power-receiving element 98 (Fig. 18) that are visible to a user of the device 10 (Fig. 18) when the element is attached to the device have an external appearance which conforms to an external appearance of adjacent parts of the device (Fig. 18).

Regarding claim 17, the combination including Kikinis teaches wherein a part of the power-receiving element 98 (Fig. 18) which must be placed in proximity with the transmitter is marked or coloured or labelled distinctively (obvious it will have different color because of the panels).

Regarding claim 18, the combination including Kikinis teaches wherein the power-receiving element 98 (Fig. 18) has, at a surface thereof that is visible to a user of the portable electrical device 10 (Fig. 18) when the element is attached to the device, a substantially transparent pocket for carrying an insert to be visible to the user (Fig. 18).

Regarding claim 19, the combination including Kikinis teaches an indicator 25 (Fig. 3) which produces a predetermined indication of an operating state of the apparatus.

Regarding claim 20, the combination including Kikinis teaches wherein the power-receiving element 98 (Fig. 18) is substantially flat (Fig. 18).

Regarding claim 21, the combination including Kikinis teaches wherein the power-receiving element 98 (Fig. 18) is flexible (portable).

Regarding claim 22, the combination including Mickle teaches a portable electrical device 4 (Fig. 1) and inductive power receiving apparatus 100 (Fig. 1).

Regarding claim 23, the combination including Kikinis teaches wherein the power-receiving element 98 (Fig. 18) is attached to an external surface portion 12 (Fig. 18) of the device 10 (Fig. 18).

Regarding claim 24, the combination including Kikinis teaches wherein the power-receiving element is attached to an internal surface portion of the device (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 25, the combination including Kikinis teaches wherein the internal surface portion is a surface portion of a battery compartment of the device (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 26, the combination including Kikinis teaches wherein the one or more corresponding power connectors of the portable electrical device are internal power connectors (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 27, the combination including Kikinis teaches wherein the one or more corresponding power connectors of the portable electrical device are battery connectors (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 28, Kikinis teaches a power-receiving element 98 (Fig. 18) in the form of a sticker (obvious that the power receiver element must be secured to the device by a sticker, screws, fasteners, etc.) adapted to be attached adhesively to a surface portion of a portable electrical device 10 (Fig. 18), the element being adapted to receive power wirelessly from a transmitter of power when the element and transmitter are in proximity with one another, and having connection means from which an electrical connection can be made to a power connector of the device (Page 11 line 28-

Page 12 line 4 and Page 33 lines 4-15). Kikinis fails to teach an inductive power-receiving element.

Mickle teaches an inductive power-receiving element 100 (Fig. 1) adapted to be attached adhesively to a surface portion of a portable electrical device 4 (Fig. 1), the element being adapted to receive power wirelessly by electromagnetic induction 30 (Fig. 1) from a transmitter of power 2 (Fig. 1) when the element and transmitter are in proximity with one another (Section 0030).

Regarding claim 29, the combination including Kikinis teaches wherein the sticker has a removable backing sheet on its adhesive side which is removed at the time of attaching the element to the device (Fig. 18, obvious in order to attach the receiving element to the device).

Regarding claim 30, the combination including Kikinis teaches wherein a side of the sticker opposite its adhesive side conforms in appearance to surface portions of the portable electrical device that will be adjacent to the opposite side when the sticker is attached to the device (Fig. 18, obvious in order to attach the receiving element to the device).

Regarding claim 31, the combination including Kikinis teaches wherein the sticker has, on its side opposite its adhesive side, a substantially transparent pocket for carrying an insert (Fig. 18, obvious in order to make the appearance look better).

Regarding claim 38, method claim 38 is rejected for the same reason as apparatus claim 1 since the recited elements would perform the claimed steps.

Regarding claim 39, the combination including Kikinis teaches wherein the one or more corresponding power connectors of the portable electrical device are externally accessible power connectors (Page 11 line 28-Page 12 line 4 and Page 33 lines 4-15).

Regarding claim 40, the combination including Kikinis teaches a mechanical attachment arrangement adapted to attach the power-receiving element 98 (Fig. 18) mechanically to the device when the apparatus is in use (Fig. 18, obvious the power-receiving element has to be attached to the PDA).

Regarding claim 42, the combination including Kikinis teaches wherein the one or more corresponding power connectors of the portable electrical device are externally accessible power connectors (Page 11 line 28-Page 12 line 4 and Page 33 lines 4-15).

Regarding claim 43, the combination including Kikinis teaches wherein the wireless power receiving apparatus further comprises power-conditioning circuitry operable to condition the power received by the power-receiving element prior to delivery to the portable electrical device (Page 11 line 28-Page 12 line 4 and Page 33 lines 4-15).

Regarding claim 44, the combination including Kikinis teaches wherein the power connector of the device is an externally accessible power connector (Page 11 line 28-Page 12 line 4 and Page 33 lines 4-15).

Regarding 47, the combination including Kikinis teaches wherein the one or more corresponding power connectors of the device are externally accessible power connectors (Page 11 line 28-Page 12 line 4 and Page 33 lines 4-15).

Regarding claim 48, the combination including Kikinis teaches wherein the power-receiving element 98 (Fig. 18) is attached to an external surface portion of the device 10 (Fig. 18).

Regarding claim 49, the combination including Kikinis teaches wherein the power-receiving element 98 (Fig. 18) is attached to an external surface portion of the device 10 (Fig. 18).

3. Claims 4, 32-37, 41, and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis et al. (WO 96/02879) in view of Mickle et al. (US Pat# 2005/0192062) and further in view of Lahteenmaki et al. (US Pat Pub# 2002/0042291).

Regarding claim 4, Kikinis in view of Mickle teaches the limitations in claim 1. Kikinis and Mickle fail to teach a replacement cover.

Even though it is obvious that Kikinis cover 12 and 98 (Fig. 18) can be considered a replacement cover since it can replace PDAs without a power receiving element, Lahteenmaki better teaches a replacement cover 5 (Fig. 2a) portion of the portable electrical device 1 (Fig. 2a).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a replacement cover as taught by Lahteenmaki into an inductive power-receiving element as taught by Mickle into Kikinis's wireless power receiving apparatus in order to increase functional needs (Section 0006).

Regarding claim 32, Kikinis teaches a replacement cover 98 (Fig. 18, can be considered a replacement cover since it can replace PDAs without a power receiver

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element) portion for a portable electric device 10 (Fig. 18), a power-receiving element 98 (Fig. 18) adapted to receive power wirelessly from a transmitter of power when the element and transmitter are in proximity with one another, and having connection means from which an electrical connection can be made to a power connector of the device (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15). Kikinis fails to teach an inductive power-receiving element and a replacement cover.

Mickle teaches an inductive power-receiving element 100 (Fig. 18) adapted to receive power wirelessly by electromagnetic induction 30 (Fig. 1) from a transmitter of power 2 (Fig. 1) when the element and transmitter are in proximity with one another (Section 0030).

Kikinis and Mickle fail to teach a replacement cover.

Lahteenmaki teaches a replacement cover 5 (Fig. 2a) portion of the portable electrical device 1 (Fig. 2a).

Regarding claim 33, Kikinis further teaches having a power connector part carrying one or more power connectors connected operatively to the power-receiving element and arranged to connect, when the replacement cover portion is in place on the device, to one or more corresponding power connectors of the portable electrical device (Page 11 line 28-Page 12 line 4 and Page 33 lines 4-15).

Regarding claim 34, Kikinis further teaches adapted to cover a battery compartment of the portable electrical device, and having one or more battery connectors adapted to connect to one or more corresponding battery connectors of the

device and/or to terminals of one or more batteries installed in the device (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 35, Kikinis further teaches wherein the one or more battery connectors of the cover portion are adapted to be interposed between the battery terminals and the corresponding battery connectors of the device (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 36, Kikinis further adapted to cover a battery compartment of the portable electrical device, and further carrying or incorporating at least one rechargeable battery such that, when the replacement cover portion is in place on a device, the battery is installed operatively in the battery compartment, the power-receiving element being connected operatively to the battery for charging the battery when power is received wirelessly from the transmitter (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Regarding claim 37, Lahteenmaki further teaches being a replacement cover portion 5 (Fig. 2a) for a handset of a mobile communications network 1 (Fig. 2a).

Regarding claim 41, Lahteenmaki further teaches a replacement cover portion 5 (Fig. 2a) of the portable electrical device 1 (Fig. 2a).

Regarding claim 45, Kikinis teaches wherein the portable electrical device has no inductive power receiving capability (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15). Kikinis and Mickle fail to teach a replacement cover

Lahteenmaki teaches wherein the replacement cover portion 5 (Fig. 2a) is adapted to be retro-fitted to the device so as to provide the device 1 (Fig. 2a) with that capability (Fig. 2a).

Regarding claim 46, Kikinis further teaches wherein the power connector is an externally accessible power connector of the device (Page 11 line 28-Page 12 line 4, and Page 33 lines 4-15).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW WENDELL whose telephone number is (571)272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Wendell/
Examiner, Art Unit 2618

/Nay A. Maung/
Supervisory Patent Examiner, Art
Unit 2618

3/19/2008